



## HIGH FLIGHT

by

John Gillespie Magee, Jr.

Oh, I have slipped the surly bonds of earth  
And danced the skies on laughter-silvered  
wings;  
Sunward I've climbed and joined the tumbling  
mirth  
Of sun-split clouds—and done a hundred things  
You have not dreamed of—wheeled and soared  
and swung  
High in the sunlit silence. Hovering there  
I've chased the shouting wind along and flung  
My eager craft through footless halls of air.  
Up, up the long delirious, burning blue  
I've topped the wind-swept heights with easy  
grace,  
Where never lark, or even eagle, flew;  
And, while with silent, lifting mind I've trod  
The high untrespassed sanctity of space,  
Put out my hand, and touched the face of God.



## MONTANA AERONAUTICS COMMISSION

Volume 19—No. 12

MERRY CHRISTMAS

December, 1968

### MONTANA'S FIRST STATE AVIATION CONFERENCE



Helena Civic Center—scene of the first Aviation Conference to be held in Montana.

The Montana Aeronautics Commission will sponsor the first State Aviation Conference to be held in Montana on December 17th and 18th.

The meetings will be held in the auditorium of the Civic Center, corner of Park and Neill in Helena.

The purpose of the conference is to present the problems and the pro-

grams of "Aviation in Montana," present and future.

Invitation letters have been sent to members of the Legislature; aviation committees of local Chambers of Commerce; State Chamber of Commerce; representatives of the Airlines; General Aviation Flight Operators; pilots; City and State Govern-

ment Officials; Engineering and Construction firms; members of County Commissions, airport boards and airport managers. The Conference will be open to the public and all interested persons are urged to attend.

The program will be as follows:

#### December 17, 1968 (Tuesday)

1:00 p.m. REGISTRATION

1:30 p.m. WELCOME AND INTRODUCTION

Charles A. Lynch

COMMISSION RESPONSIBILITY,  
GENERAL POWERS AND DUTIES

1:45 p.m. MONTANA STATE AIR  
TRANSPORTATION STUDY —  
Dr. Lloyd Rixe

2:45 p.m. COFFEE BREAK

3:00 p.m. MONTANA STATE AIR  
TRANSPORTATION STUDY —  
William Ewasiuk

4:00 p.m. QUESTION AND ANSWER PERIOD

4:15 p.m. PROPOSED COMMISSIONED ACTION BEFORE THE CAB—Henry Loble

5:00 p.m. QUESTION AND ANSWER PERIOD

#### December 18, 1968 (Wednesday)

9:00 a.m. THE STATE AIRPORT  
SYSTEMS PLAN—

James H. Monger

(Continued on Page 2, Col. 2)



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of the  
**MONTANA AERONAUTICS  
COMMISSION**

Box 1698

Helena, Montana 59601

Tim Babcock, Governor

Charles A. Lynch, Director

E. B. (Ted) Cogswell, Chairman  
Clarence R. Anthony, Vice-Chairman  
Robert H. Howe, Secretary  
Carl W. (Bill) Bell, Member  
Gordon R. Hickman, Member  
Walter Hope, Member  
Jack R. Hughes, Member



## In Memoriam

**RICHARD W. HICKOX**

1922 - 1968

We extend our deepest sympathy to the widow and family of Dick Hickox.

Dick, one of Montana's most qualified pilots, was chief pilot for general aviation operations for over twenty years. He was highly respected by all of the aviation industry and will be most sincerely missed by all who knew him.

## FEDERAL AVIATION ADMINISTRATION ITINERARY LISTING



Airport	Dec.	Jan.	Feb.
Culbertson	4	—	5
Glasgow	—	8	—
Glendive	—	23	—
Great Falls	5	9	6
Lewistown	18	—	19
Miles City	19	—	20
Missoula	19	23	20
Sidney	—	22	—

NOTE: Provisions have been made to give private, commercial and flight instructor and instrument written examinations ON AN APPOINTMENT BASIS ONLY at the following FAA Flight Service Stations:

Bozeman	Lewistown
Butte	Livingston
Out Bank	Miles City
Dillon	Missoula

Great Falls

(Continued From Page 1)

9:45 a.m. QUESTION AND ANSWER PERIOD

10:00 a.m. COFFEE BREAK

10:15 a.m. FINANCING AND IMPLEMENTATION—  
Charles Lynch

10:45 a.m. QUESTION AND ANSWER PERIOD

11:00 a.m. PROPOSED LEGISLATION—William Sternhagen

11:30 a.m. QUESTION AND ANSWER PERIOD

11:45 a.m. "MONTANA AND ITS AIRCRAFT"

A 28-minute color sound film. A lively and beautiful presentation of Aviation in Montana.

If you did not receive a notification letter, please consider this your invitation.

"The future of Montana Aviation" is of vital importance to all communities and their residents for it is a major part of "the future of Montana."

## FAA NEWS ITEMS

### MECHANIC SAFETY AWARD PROGRAM

Aviation mechanics are reminded that they have less than three weeks left in which to enter their suggestions in the 1968 FAA Aviation Mechanic Safety Award Program.

With a deadline of December 31, 1968, many of the nation's top aviation mechanics are already competing in the contest which will bring two national winners \$500 each, a handsome bronze plaque, and an all-expense trip to Washington, D.C. for themselves and their families.

These awards lead the list of those that will be granted to national, regional and state winners in the 1968 Aviation Mechanic Safety Award Program, an annual competition sponsored by FAA, the aviation industry, and associated labor groups.

Entries will be judged in three categories; improvements to airframes, engines, or components; improvements to maintenance or inspection procedures; and outstanding demonstration of professionalism in carrying out a mechanic's duties. Nominations may be made by the mechanic himself or on his behalf, by someone familiar with his work.

## CRACK DOWN ON EXAM CHEATING

The Federal Aviation Administration said that its investigation of irregularities in the use of airman examinations have led to at least 25 violation actions against individuals over the past year, including criminal action by the Department of Justice.

FAA regulations provide for civil enforcement proceedings against anyone who copies or removes written test materials; gives or receives test information; takes a test on behalf of another; uses unauthorized materials in taking a test; or has unauthorized possession of test materials. These irregularities are subject to FAA civil penalties up to \$1,000 per offense, as well as suspension or revocation of airman certificates and school operating certificates. Under certain conditions, criminal action may be taken by the Department of Justice.

To date in the current investigation, there have been 16 cases in which airman certificates have been revoked by FAA or surrendered voluntarily at the agency's request. One flight training school also has had its FAA certificate revoked.

In addition, the agency has secured temporary injunctions against a publisher of airman training materials and an airman training school.

## RADAR—\$2 MILLION CONTRACT

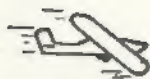
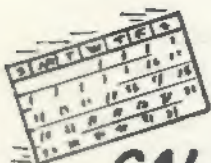
The Federal Aviation Administration has awarded a \$2,093,004 contract to modify seven military long range radar antenna systems. Kalispell, Montana, is one of five installations that will be for joint civil/military use and there are two installations for civilian use only.

The radar modifications which will be made on FPS-7 military radars will adapt the sets to meet special air traffic control requirements needed by the FAA in the automated National Airspace System. The modifications include a new antenna system, parametric amplifiers and circular polarizers.

Modification installations will begin late next year.

NASA has bought \$3 million worth of magnetic tape (120,000 miles of it) for telemetry purposes to monitor Apollo lunar flights and deep space probes, and for use in its data acquisition, communications, and manned space flight networks.





## CALENDAR

**December 9-13, Hollywood, Florida** —National Aviation Trades Association—National Air Taxi Conference Annual Meeting. Headquarters Diplomat Hotel.

**December 16-18, Columbus, Ohio** —Flight Instructor Revalidation Course. Held at the Ohio State University, Department of Aviation Contact: Short Course Coordinator, Department of Aviation, Ohio State University, Box 3022, Columbus, Ohio 43210.

**December 17 & 18, Helena, —** The First Montana Aviation Conference, to be held at the Civic Center. Tuesday 1:00 p.m. to 5:00 p.m.—Wednesday 8:00 a.m. to 12:00 noon.

**December 18, Helena —** Montana Aeronautics Commission's Monthly Meeting.

**December 31, 1968 —** Deadline for entries for the Sixth Aviation Mechanic Safety Award.

**January 8-11, Hollywood, Florida** — 21st Annual Meeting of the Helicopter Association of America and Helicopter Showcase. Headquarters Diplomat Hotel and Country Club.

**January 11-14, Bahama Cruise —** Official post convention tour of the Helicopter Association from Ft. Lauderdale, Florida to Freeport, Grand Bahama.

**January 17 & 18, Butte —** Montana Aviation Trades Association and Montana Airport Managers Association's combined convention. Headquarters, Finlen Hotel.

**February 15, 1969 —** AOPA's All Hawaiian Carnival—4 nights in Honolulu, 3 nights in Kauai, and 1 night in Hilo. Los Angeles Departure Point.

**April 26, 1969 —** AOPA's All Hawaiian Carnival — 4 nights in Honolulu, 3 nights in Kauai, and 1 night in Hilo. Departure Point—Los Angeles.

**July 12, 1969 —** AOPA's All Hawaiian Carnival — 4 nights in Honolulu, 3 nights in Kauai and 1 night in Hilo. Departure Point—Los Angeles.

Weatherman to radio announcer: "Better break it to 'em gently. Just say, 'Partly cloudy, with scattered showers followed by a hurricane'."

## MAMA—MATA TO HOLD JOINT MEETING

By Hugh "Bud" Kelleher  
Airport Manager  
Helena, Montana

Art Wiedeman, President of the Montana Airport Management Association and Airport Board Member of the Lewistown Airport Commission announces that plans are proceeding in fine shape for the joint meeting between the Montana Airport Management Association and the Montana Aviation Trades Association to be held in Butte at the Finlen Hotel on January 17 and 18, 1969.

The purpose of the joint meeting is to attempt to establish better relations between the Montana Flight Operators and Airport Management. Wiedeman stated that there are a great number of small airports in Montana that do not have full time Airport Managers and that the Fixed Base Operator usually serves as Airport Manager. This year the annual program will be arranged in such a manner that it will be interesting for the Flight Operators and the Agriculture Operators, as well as Airport Management.

The Program for the two day meeting will start with registration at 9:00 a.m. January 17th and continue through the two days. There will be a joint luncheon of the two Associations at 12 noon on the 17th.

During the course of business of the two day meeting, there will be panels presenting information to clarify and assist in operating Montana Airports. One such panel will be a Rent-A-Car panel with a representative of the Rent-A-Car System, as well as representatives of the Flight Operators and Airport Management. This panel will attempt to establish some type of liaison between the Rent-A-Car Systems and Montana Airport Management on establishing fair and equitable percentage to be paid by Rent-A-Car Systems.

Jim Monger, Assistant Aeronautics Director will moderate a Maintenance and Engineering Panel which will include a representative from the Asphalt Institute; the Federal Aviation Administration, the Montana Aeronautics Commission and large and small airports to answer some of the airports every day maintenance problems.

Bob Scarborough, Airport Manager of Billings, will chairman a Third Level Air Carrier Panel with a representative from the Postal Department. This panel created a great deal of interest last year so the Board decided to discuss it again this year.

A panel on Airport Leasing will present a general Lease for Airports that can be used for almost any occasion with a few local changes. Naturally every airport is like a woman and every one is different so they have to be tailored to fit the region they operate in.

Both Associations will attend the buffet dinner on Friday night the 17th and the annual banquet on the night of the 18th.

## CONVENTION NOTICE MATA MEMBERS

During the MAMA-MATA Convention there will be several separate sessions directed to Flight Operators and Aerial Application Operators!

During the Aerial Application session there will be presentations on Insurance, Leases, and one by the Health Department relative to aerial application.

\* \* \*

During the joint sessions, there will be a presentation by Judge W. W. Lessley of Bozeman relative to "contract" information that is of vital importance to all.

Other featured speakers for the convention will include: Darrold Livingston (Eastern Montana College) speaking on the psychology of employer/employee relations—Saturday Luncheon. Charles Broman, General Manager of Tuscon International Airport—Saturday Night Banquet.

In addition this will be a "Banner year for Exhibitors."

\* \* \*

Operators that are not presently members of MATA are urged to join prior to the meeting by contacting, Elizabeth Herrin, Morrison's Flying Service, Helena Airport, Helena, Montana, or, you may join during the registration period at the convention.

\* \* \*

**MATA MEMBERS —** This joint meeting promises to be very beneficial to our industry — LET'S HAVE A REAL TURN-OUT!!

The smallest deed is better than the grandest intention.



## AIRPORT NOTES



By James H. Monger  
Assistant Director, Airports

**Marias Pass** — The Airport Division has made a final determination on the feasibility of an airstrip in the location of Marias Pass just West of Summit, Montana. The location in question is in the immediate vicinity of Geifer Creek. The location was turned down for any possibility of State funds because of three serious problems. The approaches are inadequate due to nearby mountains thus causing a safety problem; land availability is questionable; and construction and engineering problems are unsurmountable with the limited budget. Therefore, the Airport Division will continue to search for an airstrip location somewhere between Cut Bank and Kalispell along U.S. Highway 2, which is a popular VFR flight route.

**Browning** — The Browning Flying Club has rented ground space for the construction of a hangar on the Star School Browning Airport. The hangar will be approximately 40 feet by 130 feet. Starr-Browning is a State-owned and operated airport.

**Loan Program** — The Montana Aeronautics Commission will have its quarterly review of the loan program and loan applications on December 18th. Airport improvement loan applications on file are from the following airports: Valier, Butte, Great Falls and Billings. Valier is requesting a loan in the amount of \$36,771; Butte, \$8,385.70; Great Falls, \$70,000; and Billings, \$50,000.

**FAAP** — The Federal Aid to Airport Program for fiscal year 1970 is now being evaluated by the Airport District Office. The FAA has received requests for aid from the following airports: Baker, Billings, Butte, Great Falls, Kalispell, Valier, Lincoln, Chester and Missoula. The Helena project was approved in the 1969 program. A brief description of the projects is as follows: Baker, pave and extend runway; Billings, strengthen taxiways, extend apron; Great Falls, extend runway No. 3 and reconstruct a

part of runway 21, land acquisition, lighting; Flathead County Airport, land acquisition, construct runway extension, construct parallel taxiway, lighting, and miscellaneous; Missoula, runway overlay, reconstruct apron, land acquisition, and runway extension; Valier, construct new paved runway, taxiway and aprons; Butte, extend runway to the North 850 feet and miscellaneous; Lincoln, strengthen runway, taxiway, apron; Chester, strengthen runway, taxiway and apron.

**Havre VOR** — The Havre, Montana VOR located on the City-County Airport operates on a frequency of 111.8. The unit is owned by the State of Montana and maintained by the Federal Aviation Administration, reimbursed by the State Aeronautics Commission. The FAA has advised that the Havre VOR is now commissioned for public IFR use.

## CONGRATULATIONS



### FAA CERTIFICATES ISSUED RECENTLY TO MONTANA PILOTS

#### STUDENT

Levinson, John C.—Rockford, Ill.  
Fulton, Thomas D.—Bozeman  
Rockwell, Daniel J.—Sun River  
Obie, Edgar L.—Chinook

#### PRIVATE

Hay, Brian T.—Glasgow  
Billmeyer, David L.—Hogeland  
Eichele, James W.—Billings  
Nystul, Randolph A.—Columbus  
Storer, Duane L.—Columbus  
Turcotte, James E.—Billings  
Hough, McCulla—Broadus  
Banister, Ray G.—Wibaux  
Wagner, Paul C.—Watford City, N.D.  
Hanson, Greg K.—Scobey  
Lagerquist, Alton L.—Billings  
McCurdy, Robert D.—Broadus  
Curtis, Lowell C.—Manhattan  
Heinert, Anton C.—Great Falls  
Adams, Garry L.—Malta  
Kuzmic, Charley W.—Libby  
Andersen, Charles E.—Missoula  
Leudeman, Kim A.—LeRoy, Mich.  
Arnett, Arnold O.—Missoula  
Welch, William G.—Polson  
York, Wayne J.—Sidney  
Perry, Thomas C.—Kalispell

Sand, Harold E.—Kalispell  
Gaglia, Bruce N.—Bozeman  
Allen, Bernard C.—Bozeman  
Frazier, Gerald A.—Powell, Wyo.  
Lammers, Arville J.—Shawmut

#### COMMERCIAL

Shovgaard, Dennis R.—Billings  
Lawrence, John O.—Southampton, N.Y.  
Torgerson, Maxwell O., Jr.—  
Frannie, Wyo.  
Stroud, Douglas M.—Missoula  
Richardson, Samuel E.—Fort Peck

#### INSTRUMENT

Thomson, Stewart L.—Lewistown  
Coates, William T.—Deer Lodge

#### MULTI-ENGINE

Birkholz, Maurice D.—Minot, N.D.  
Erickson, Ronald R.—Minneapolis, Minn.  
Swanson, Richard E.—Minneapolis, Minn.

Rudin, Judith A.—Billings  
Herrod, Thomas E.—Billings

#### SEAPLANE

Weir, Lloyd R. (Comm.)—  
Hungry Horse  
Walter, James S. (Private)—  
Kalispell  
Christensen, James W. (Private)  
Kalispell  
Archibald, John R. (Comm.)  
Kalispell

Lucas, Forrest C. (Private)  
Columbia Falls

#### FLIGHT INSTRUCTOR

Graham, Gerald J.—Billings  
Cowan, Ronald G.—Billings  
Christensen, Richard G.—Gt. Falls  
Brutosky, Boyce A.—Sun River  
LeDeau, Gary A.—Missoula  
Saxman, John B., Jr.—Missoula

#### FLIGHT INSTRUCTOR

#### INSTRUMENTS

Hogan, Richard F.—Billings  
**BASIC GROUND INSTRUCTOR**  
Poletto, Danny A.—Great Falls

#### ADVANCED GROUND INSTRUCTOR

Sinner, Richard A.—Helena  
Gummer, Thomas E.—Missoula  
Poletto, Danny A.—Great Falls

#### INSTRUMENT GROUND INSTRUCTOR

Imeson, Sparky J.—Jackson, Wyo.

#### ROTCRAFT

Rundell, Richard W. (Com.)—  
Belgrade

#### POWERPLANT MECHANIC

Gregory, Lawrence E.—Missoula  
**RADIO REPAIRMAN**

Nelson, James E.—Billings

#### SPECIAL TYPE RATING

Komberec, Charles R. (Grumman  
TBM)—Missoula



## FLY MONTANA FOR FUN IN THE SNOW

Montana offers one of the finest and the widest variety of "Fun in the Snow" sports to be found anywhere!

Montana's snow centers are geared to the "Flying" winter sportsman. Fly via airlines or private aircraft into airports ranging from tower controlled to the smaller community airport and you will find a "snow spot" adjacent or in the immediate area.

Whether you enjoy skiing—snowmobiling—luge racing—winter fishing—participation in Winter Carnivals and Events or photography, Montana's scenic splendor is unsurpassed come the snow.



Skiers pause for a panoramic view of the Flathead Valley while skiing on Big Mountain in the Whitefish/Kalispell area.

**SKI:** Over two dozen ski areas are located within Montana's boundaries. All major Montana cities adjacent to the larger ski areas are served regularly by the airlines. The areas provide runs for skiers from the Beginner to the Expert.

**SNOWMOBILES:** Montana claims title to "Snowmobile Capital of America" and is leading the nation in the development of snowmobile trails. The snowmobile enthusiast can enjoy the many trails leading over mountains, through Parks and Ghost Towns or participate in planned rallies and races from mid-October to early May. The West Yellowstone snowmobile rally draws snowmobilers from all points in the U.S. (4th Annual Rally at West Yellowstone will be held March 13-16, 1969). At West, one can



Two snowmobile enthusiasts trail riding on MacDonald Pass—located 15 miles west of Helena.

drive their own machine, rental machine or travel into the Park to Old Faithful Geyser in one of the 12-passenger heated snowmobiles. More than 20 hotels and motels at West have winterized their facilities to accommodate winter vacationists.

**LUGE:** Montana also has the North American Continent's first Luge Course. It is located 36 miles South-west of Missoula at Lolo Hot Springs.

**SPECTATORS & PHOTOGRAPHERS:** Scenic beauty—abundance of wild life—numerous winter carnivals—exhibition and racing events are here to enjoy!!

For a complete calendar of winter events and accommodations contact: Montana State Chamber of Commerce—P.O. Box 1730, Helena, and the State Advertising Department—Montana Highway Commission, Helena, Montana 59601.

For Aeronautical Information write: Montana Aeronautics Commission—P.O. Box 1698, Helena, Montana 59601.

## REGISTRATION CUT-OFF DATE

DECEMBER 1, was the cut-off date for 1968 aircraft registration and 1968 pilot registration.

All aircraft registration and pilot registration received since December 1 will be held for 1969 registration.

'69 Registration will commence January 1, 1968.

## CONSTELLATIONS COMPLETE FINAL

### U.S. SCHEDULED FLIGHT

The last scheduled airline flight in North America for the venerable Lockheed Constellation came to an end in Anchorage, Alaska, on November 26 when Western Air Lines' Flight 1A rolled to a stop at International Airport. The flight between Juneau, Yakutat, Cordova, and Anchorage ended an era of U.S. airliner service that began at the end of World War II. Western Air Lines acquired the graceful, triple-tailed Constellations in 1967. On board the last scheduled Connie flight was the Hon. Walter J. Hickel, governor of Alaska, with officials of Western Air Lines and Lockheed Aircraft Corporation, and others who wanted to be aboard for sentimental reasons.

The Connies are being replaced in Alaskan service by bigger, faster, four-engine propjet Electras modified by Lockheed to provide cargo and passenger capacity required by Western's growing Alaska traffic. Four-engined Boeing jets in WAL's fleet also serve Juneau and Anchorage.

The Lockheed Missiles and Space Company has developed a new device that can detect weapons on persons boarding airliners. Using a magnetic sensor, the device would detect the movement of magnetic fields of ferrous metal objects such as guns.



## FAA INSPECTORS' CORNER



### FUEL CONTAMINATION

By Roger Riggins  
Accident Prevention Specialist  
GADO No. 1, Billings

Review of accident reports reveals that the cause factors of most power failures attributed to fuel contamination are due to inadequate preflight action by the pilot, lack of proper maintenance, servicing aircraft from improperly filtered small tanks or drums, and storing aircraft with partially filled fuel tanks which may result in condensation and contamination of fuel.

In many cases, accumulated material around the aircraft fuel tank drain plugs indicated that the plugs had not been removed since installed by the manufacturer. The importance of the following maintenance precautions conducted at periodic intervals should be heavily emphasized:

1. Clean and inspect the fuel tank outlet strainer.
2. Clean and inspect the carburetor inlet screen.
3. Clean and inspect the fuel strainer (gascolator) screen.

Preliminary tests, as described below, made on the fuel system of a high wing light aircraft revealed certain conditions which are potentially dangerous and are not believed to be generally known to pilots.

After all water was removed from the fuel system of a popular make high wing, tail wheel type aircraft, three gallons of water were added to the half-full fuel tank. After a few minutes the fuel strainer was checked for water. It was necessary to drain ten ounces of fuel before any water appeared. This is considerably more than most pilots drain when checking for water.

In a second test with the same aircraft in flying attitude (to simulate a tricycle geared model) the fuel system was again cleared of all water; then one gallon of water was added to the

half-full fuel tank. Upon checking the fuel strainer quick drain, more than a quart of fuel was drained before any water appeared.

In both of the above described tests, about nine ounces of water remained in the fuel tank after the fuel strainer ceased to show any trace of water. This residual water could be removed only by draining the fuel tank sumps.

The use of quick drain valves in the fuel tanks makes it practical to keep the tanks free of significant quantities of water and contaminations. Checking the fuel tanks for water, in addition to the fuel strainer, should be a common practice in the preflight inspection, as it can minimize the hazard of power failure due to fuel contamination.

The fueling of aircraft from cans and drums should be avoided if possible, as this practice introduces a likelihood of fuel contamination. Should it become necessary to do this, the fuel should always be strained through a chamois skin that is in good condition.

During the winter months a quick drain valve that is frozen shut should not be ignored as this would indicate water in the fuel system and a potential source of trouble.

### WINTER FLYING By Lauren D. Basham

GA Operations Inspector  
GADO No. 9, Helena

Winter is definitely upon us in Montana and so to highlight some important factors relating to winter flying, we submit the following. Winter flying is not particularly hazardous if you, the pilot, will use that extra margin of caution in weather involvement and observe these appropriate winter aircraft precautions.

1. Thoroughly familiarize yourself with your aircraft and engine handbooks in order to know intimately all systems and the recommended winter operation procedure.

2. Know that the winter's low temperature can change the viscosity of engine oils, reduce the effectiveness of the storage battery and precipitate metal failures in various component parts of your aircraft with little or no

warning. For this reason, engine pre-heat is essential for the engine as well as the cockpit area.

3. Conduct your preflight planning and flight preparation with thoroughness to detail appropriate to the intended operation.

4. Remember that winter daylight hours are few and plan your flight accordingly. If your night time experience is limited, be aware that night operation in winter can pose a special hazard all its own.

5. In making your business appointments, never fail to give yourself an out by informing your contact that you intend to fly and to arrive at a certain time unless the weather indications are unfavorable, in which case you will be required to drive or use other means of available transportation.

6. Remember that a VFR pilot should avoid taking chances if the weather is questionable and stay on the ground. A marginal weather operation in the winter is doubly hazardous since a pilot may be severely handicapped in selecting either an alternate course of action or change in destination.

7. Thoroughly check all available weather information and study the trend of the weather religiously in order to operate with the maximum in safety.

8. Never fly into snow or rain showers obscuring the terrain. Use your good judgment and the 180° turn before you lose forward vision and become a statistic.

9. Do not attempt to fly on instruments or on top of an overcast if you are not instrument rated and current **AND** flying a properly equipped aircraft.

10. Never attempt a take off with either frost, ice or snow on the windshield, wings and control surfaces of your aircraft.

11. Be forewarned that many a pilot has inadvertently been placed on instruments following a take off in beautiful VFR weather in an aircraft parked outside overnight when the condensation of moisture in the heater ducting completely covers the



windshield from the inside. When conducting such an operation, make sure that the heater and air vents have purged the moist air prior to take off.

12. Never be too proud or ashamed to ask a local operator or senior local pilot for advice about local flying conditions. He may be more familiar with the local area flying conditions than you.

13. Have the following items checked for winter operation—cabin heater system for operation and leaks (CARBON MONOXIDE CAN BE DEADLY), exhaust system, windshield defrosting system, engine idle speed, carburetor heat, brakes, etc.

14. Remember that during let down, it may be difficult to keep the engine warm enough for high power operation if needed. It may be desirable to use considerably more power than normal during approaches to avoid excessive engine cooling. Remember that a rapid throttle operation may cause complete engine failure.

15. Remember that winter time is a perfect setting for white-out conditions due to snow covered terrain, haze and falling snow and you could find yourself on instrument conditions with a complete loss of visual contact.

16. Remember that depth perception is faulty when attempting to land on unbroken snow covered surfaces or at night in marginal weather conditions.

17. Remember that you, the pilot, have the complete responsibility for the GO/NO/GO decision based on the best information available—DO NOT let compulsion take the place of good judgment — FLY WITH SAFETY.



## TOWER OPERATIONS

OCTOBER, 1968

	Total Operations	Instrument Operations
Billings	13,538	1,816
Missoula	10,417	602
Great Falls	9,485	1,818
Helena	4,531	545

## MEMBER OF FIRST AERONAUTICS COMMISSION ATTENDS MEETING



H. L. "Bert" Cummings

Mr. H. L. "Bert" Cummings, Billings, a member of the first Montana Aeronautics Commission, was a guest at the Commission's November meeting held in Helena. The meeting included the planning session for the Commission's Aviation Conference.

Mr. Cummings represented the Commercial Airlines on the Commission from July 1945 to July 1961—holding the longest Commission appointment of any member to date. In addition to being on the First Commission, Mr. Cummings served on Governor Ford's Planning Committee for the initial development of the Aeronautics Act and the formation of the Montana Aeronautics Commission.

## STATISTICS

Will your first accident be your last day alive?

61/37  
65/22  
78/18  
69/18  
54/18

	Accident Total	Fatalities
1964 Total	61	37
1965 Total	65	22
1966 Total	78	18
1967 Total	69	18
1968 To-Date	54	18

## WASHINGTON STATE COMMISSION PROVIDES BRIEFING SERVICE

Ronald R. Pretti, Director of the Washington State Aeronautics Commission urges all visiting pilots to stop by the Commission offices located on Boeing Field, Seattle, Washington. You taxi right up to the door and staff personnel will provide a complete briefing on flying conditions throughout the great State of Washington.

In addition, the Washington Commission publishes an excellent "Pilot's Guide" that provides airport data and vital information to further assist the non-resident pilot!

## AIRCRAFT RESTORES LANDSCAPE

Have you ever seen an abandoned strip mine? It's an unsightly, raw gash—a blot on an otherwise pleasant green landscape. Outcroppings of coal near the earth's surface are "strip-ped" away, leaving bare ground and scarred rock. The nation's plans for beautification include the restoration of strip mine wastelands into eye-pleasing vistas, and aviation can help.

A Cessna AgWagon, a specially built agricultural aircraft, has demonstrated the practicability of seeding and fertilizing land laid bare by strip mining. In an experiment in the Cumberland mountains in Eastern Kentucky, an AgWagon seeded and fertilized 1,200 acres in three days—a job requiring 40 days by other means. Not only that, the plane covered slopes too steep for either man or machines to treat effectively. (Reprinted from "Skylights" NAEC.)

Last August, three Pegasus satellites were "turned off" in space by ground commands after more than three years of successful operation in orbit. The satellites, designed for a lifetime of 18 months, demonstrated that spacecraft built for flights lasting a year or more will need extra protection against penetration by meteoroids.

The FAA estimates that air taxi mail service will increase more than 100 times in the next five years.



## GIFT SUGGESTION

For the pilot, aviation interested friend or Montana history enthusiast on your Christmas list, send— "Montana and the Sky."

Montana and the Sky, by Frank W. Wiley, is the authentic history of western aviation events and pioneer pilots combined with over 200 rare aviation photographs.

STANDARD EDITION \$10.00 COLLECTORS EDITION \$50.00. Checks should be made to: The Montana Historical Society.

Send your order to:

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225 North Roberts  
Helena, Montana 59601



A British medical study revealed that driving a car on a 250-mile trip places more strain on the heart than does piloting a jet plane for six hours.

The sense of duty can be either strengthened or dulled according to our use or neglect of it.

There is nothing so easy but that it becomes difficult when you do it with reluctance.

Character, like a rifle, cannot shoot higher than it is aimed.

By official FAA definition, an "antique airplane" is one built at least 30 years ago, or a replica of one built at least 30 years ago.

### MEMBER

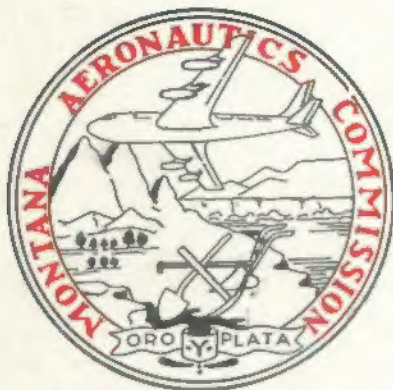
#### NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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